


At page 17, under the lower horizontal line in the Table of Residues: In the right hand column of the first row, delete "His 34" and insert therefor --His 35--; in the right hand column of the third row, delete "Leu 36" and insert therefor --Leu 37--; in the right hand column of the fourth row, delete "Asn 37" and insert therefor --Asn 38--.


At page 20, line 23, delete "3H thymidine" and insert therefor --³H-thymidine--.

In the Claims

Please cancel claims 2 and 11-16 without prejudice. Please amend claims 1, 3-5, 7, and 9 as follows. Please add new claims 17-19.

 1. (Once Amended) A mutant Streptococcal pyrogenic exotoxin type C (SPE-C toxin) [or fragment thereof];
the mutant comprising an amino acid substitution in a β -barrel of a B-subunit or a N-terminal alpha helix wherein the mutant has at least one amino acid change and is substantially nonlethal compared with a protein substantially corresponding to wild type SPE-C toxin.

3. (Once Amended) [A] The mutant SPE-C toxin [according to] of claim 1, wherein the mutant SPE-C toxin comprises one to six amino acid substitutions; and
wherein at least one of the substituted amino acids is aspartic acid-12, tyrosine-15, tyrosine-17, histidine-35, or asparagine-38[, lysine-135, lysine-138, tyrosine-139, or aspartic acid-142].

 4. (Once Amended) The mutant SPE-C toxin of claim 3, wherein the at least one amino acid substitution comprises the substitution of aspartic acid-12 to alanine, glutamic acid, asparagine, glutamine, lysine, arginine, serine, or threonine; the substitution of tyrosine-15 to phenylalanine, alanine, glycine, serine, or threonine; the substitution of tyrosine-17 to phenylalanine, alanine, glycine, glutamic acid, lysine, arginine, aspartic acid, serine, or threonine; the substitution of histidine-35 to phenylalanine, alanine, glycine, glutamic acid, lysine, arginine, aspartic acid, tyrosine, phenylalanine, serine, or threonine; or the substitution of asparagine-38 to alanine, aspartic acid, glutamic acid, lysine or arginine[; the substitution of lysine-135 to glutamic acid or aspartic acid; the substitution of lysine-138 to glutamic acid or

aspartic acid; the substitution of tyrosine-139 to phenylalanine, alanine, glycine, glutamic acid, lysine, arginine, aspartic acid, serine, or threonine; or the substitution of aspartic acid-142 to alanine, glutamic acid, asparagine, glutamine, serine, threonine, lysine or arginine].

A²
5. (Once Amended) The mutant SPE-C toxin of claim 4, wherein the at least one amino acid substitution comprises the substitution of aspartic acid-12 to alanine, the substitution of tyrosine-15 to alanine, the substitution of tyrosine-17 to alanine, the substitution of histidine-35 to alanine, or the substitution of asparagine-38 to aspartic acid[, the substitution of lysine-135 to aspartic acid; the substitution of lysine-138 to aspartic acid; the substitution of tyrosine-139 to alanine, or the substitution of aspartic acid-142 to asparagine].

A³ Sub C10
6. (Once Amended) The mutant SPE-C toxin of claim 6, wherein the substitutions are tyrosine-15 to alanine and asparagine-38 to alanine.

A⁴ Sub C12
9. (Once Amended) The mutant SPE-C toxin of claim 8, wherein the substitutions are tyrosine-17 to alanine and asparagine-38 to alanine.

A⁵
17. (New) The mutant SPE-C toxin of claim 3, wherein the at least amino acid substitution comprises the substitution of tyrosine-15 to alanine or serine; the substitution of tyrosine-17 to alanine or serine; the substitution of asparagine-38 to serine or alanine; the substitution of tyrosine-15 to serine or alanine and of asparagine-38 to serine or alanine; the substitution of tyrosine-17 to serine or alanine and of asparagine-38 to serine or alanine; the substitution of aspartic acid-12 to alanine; the substitution of asparagine-38 to aspartic acid; or the substitution of tyrosine-15 to alanine, histidine-35 to alanine and asparagine-38 to aspartic acid.

Sub C11
18. (New) The mutant SPE-C toxin of claim 6, wherein the substitutions comprise tyrosine-15 to alanine and asparagine-38 to aspartic acid.

b7
19. (New) A mutant SPE-C toxin comprising one to six amino acid substitutions,